BE. No **2019-Betty Jane & Missouri**

PLUMAS NATIONAL FOREST
Biological Assessment and Biological Evaluation
Short Form

Project Name: **Betty Jane & Missouri AML** District 03 Date 10/15/2019

Project Type: Construction _____ Nonstructural _____ Reconstruction/Maintenance X

Location: Mine UTM's: Adit 1: 647533.2E 4378066.4N Adit 2: 647539.1E 4378093.9

Location (Legal – Attach map) T.19N R.6E Sec.3 NE¼ NW1/16

Project Actions: Close both adits with Bat Gates. Shaft can be closed.

Vegetation/Habitat: Mixed conifer / hardwood forest in drainage

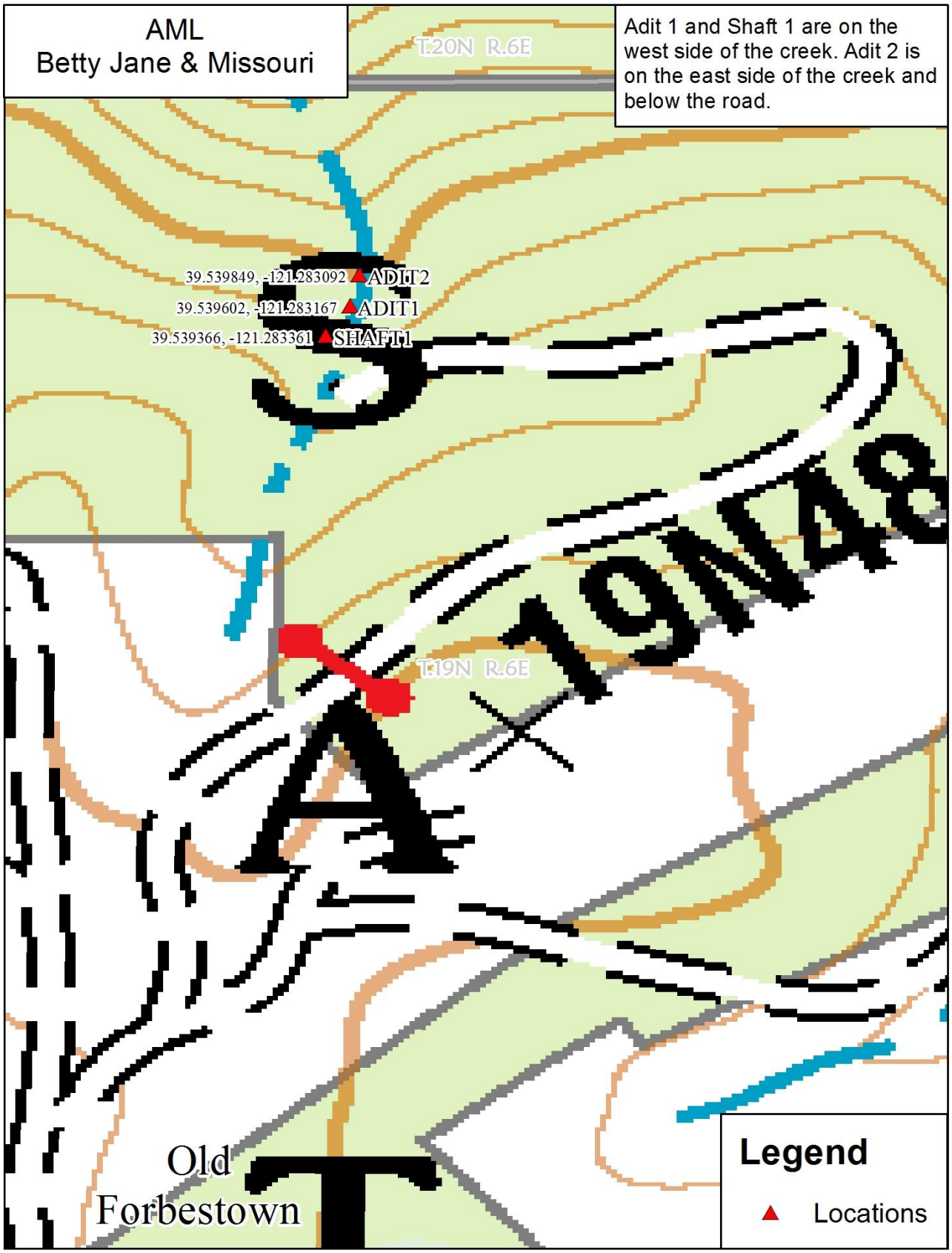
I. Prior Biological Evaluation				No	Yes
1. Prior Project:	NA	Date: NA		X	
II. Species and/or Habitat				**No**	**Yes**
1. Survey Date: May 20, 2019	Biologist is familiar with the Project Area.				x
2. Previous Species Observation (Heritage Database)				X	
3. Federally Listed Species Present				X	
4. Habitat For Federally Listed Species Present				X	
5. Sensitive Species Present					X
6. Habitat For Sensitive Species Present					X
III. Analysis of Effects				**No**	**Yes**
1. Significant Habitat Alteration				X	
2. Effects Outside Project Area				X	
3. Cumulative Effects on Listed Species or Habitat				X	
4. Cumulative Effects on Sensitive Species or Habitat				X	
IV. Determination of Effects				**No**	**Yes**
1. May Affect Threatened, Endangered, or Proposed Species				X	
2. May Affect Individual Sensitive Species				X	
3. May Affect Sensitive Species' Population Viability				X	
V. Consultation Requirements				**No**	**Yes**
1. Formal Consultation Required				X	
2. Additional Informal Consultation Required				X	

We determined that the Missouri and Betty Jane Adits require bat gates. See attached survey summary, map and pictures. The shaft can be closed. This project is a benefit for bat speceis.

This adit is not within the elevation range (4500'+) for the federally endangered Sierra Nevada yellow-legged frog (*Rana sierrae*), there is no suitable habitat within the area of the adit, it is not within SNYLF critical habitat, and there are no historical detections. Therefore, the determination is a no effect to SNYLF. There will be no impact to Forest Service sensitive species from this project.

Written by: Mary Muchowski, Wildlife & Aquatics Tech, FRRD Date: October 16, 2019

Reviewed & Approved By: JoAnna Arroyo District Biologist, FRRD Date: October 17, 2019


AML
Betty Jane & Missouri
Adit 1 and Shaft 1 are on the west side of the creek. Adit 2 is on the east side of the creek and below the road.
T.20N R.6E
39.539849, -121.283092 ADIT2
39.539602, -121.283167 ADIT1
39.539366, -121.283361 SHAFT1
T.19N R.6E
Old
Forbestown
Legend
Locations

Betty Jane & Missouri AML
Site Visit

Summary of Results
The adits provide bat roosting and the surrounding area provides foraging habitat. Bat gates are required for both adits. The shaft can be closed.

Project Site Location
Legal Description: T19N, R6E, Sec. 3, NE1/4, NW1/16
Adit 1: Lat/Long: 39.539602 N, -121.283167W
Adit 2: Lat/Long: 39.539849 N, -121.283092 W
Shaft 1: Lat/Long: 39.539366 N, -121.283361 W

Surveyors
Mary Muchowski, Jacqueline Amor
Survey Date: May 20, 2019 ***Survey Time:*** 13:00 – 14:30

Weather Conditions
Sky: clear **Wind:** calm (0-5mph) **Temperature:** 76^{o}F

Mine (shaft) Description
Adit 1 (we are unsure if this is Betty Jane or Missouri) is an adit on the west side of the creek and has an entrance opening about 4'x5', but opens up larger just inside and down from the entrance. Adit 2 is on the east side of the creek and only has a small opening (about 1'x2'), with some sort of flat metal structure at the top of the opening. The adit appears to open up on the inside and could provide bat roosting habitat. The Shaft opening is about 7'x8' and it is about 10' deep.

Methods and Results
We assessed the adit for potential bat use by looking for bats, bat guano, prey remains and roosting habitat. We were unable to do a night survey of these adits due to time constraints and lack of personnel, therefore we are using our daytime assessment to make recommendations for bat gates.

Determination
The adit and surrounding forested and open areas provide necessary roosting and foraging habitat. A bat gate will provide bats continued use of the Betty Jane & Missouri mines. A new study published (A. Tobin, 2018) in the Journal of Wildlife Management suggests that maintaining entrance dimensions when installing a gate helps provide access to the bats and preserves the roosting conditions of the mine. We recommend using a bat gate that approximates the current size of the opening (approx. 4' x 5') or as large as feasibly possible on Adit 1 on the west side of the creek. A small bat gate can be used for the smaller Adit 2. The shaft does not appear suitable for roosting bats and can be filled.

Figure 1: Adit 1

Figure 2: Adit 2

Figure 3: Shaft 1